

A NEW COMBINATION IN *LAMOUROUXIA*
(SCROPHULARIACEAE)

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In a recent revision of the genus *Lamourouxia* (Scrophulariaceae), Ernst (1972) included *L. hyssopifolia* A. Gray in synonymy under *L. longiflora* Benth. He commented "Whether *L. hyssopifolia* is conspecific is debatable as it is known from a distant locality in Chihuahua where the dimensions of the leaves and corolla are smaller and a few of the leaves are provided with one or two conspicuous teeth." He added later "If one had only a single specimen of the Hartweg collection [the type of *L. longiflora*] and only one collection of *L. hyssopifolia*, it would seem indisputable that two distinct species were represented. When all of the specimens are viewed at one time, the range of variation is apparent and suggests that one species is a better gamble until shown otherwise by biosystematic information." While we can not add any additional "biosystematic information" to the overall problem, we can report the discovery of *L. hyssopifolia* in a new location, and suggest that Ernst is correct in placing the two extremes in the same species. However, it is obvious that these entities may be readily distinguished and placed in a lower taxonomic rank.

The leaves of *Lamourouxia longiflora* are generally longer and narrower than those of *L. hyssopifolia*. In the first they range from about (25) 30-55 mm in length while those of the second are merely 10-30 (35) mm long. The width of the widest leaves in the first entity rarely exceed 6 mm, but in the other they may be up to 10 mm wide. Ernst was puzzled by the toothed leaves he noted on some specimens (but not all) of the two collections of *L. hyssopifolia* he had at hand. Our studies show that while this is a variable character from one stem to another on the same plant, it is a typical feature of the plant. We found that all plants had toothed leaves, but when herbarium specimens were prepared, often the lowermost stems are broken off (where toothed leaves are most common), or the stem was not as fully mature as others and toothed leaves were not yet present.

The flowers of our material were 35-50 mm in length and extend those measurements that Ernst had found for the specimens of *L. hyssopifolia* that he examined. The corollas of his material for

this taxon ranged in length from 26-42 mm, whereas the corollas of *L. longiflora* varied from 40-55 mm. Thus, one of the features considered by Gray (1886) and Ernst (1972) to distinguish the two species does not hold.

Two characters overlooked by Ernst are the length and condition of the lobes of the calyx. Those of *Lamourouxia longiflora* vary from 6-13 mm in length and are flattened, while the revolute lobes of *L. hyssopifolia* do not exceed 5 mm. These seemingly minor differences are consistent and may be used to distinguish the two entities.

While we have not seen all of the material of the two species available to Ernst (a total of six collections with 15 duplicates), we have been able to observe those specimens deposited at MO, NY and US. Our own collection of 30 sheets will, in fact, double the number of specimens available. From these specimens, we can conclude that the two species can not be maintained at that rank, but may be segregated into two variants which may be distinguished on three consistent morphological features. The new combination is:

Lamourouxia longiflora Benth. var. *hyssopifolia* (A. Gray) Reveal & Hess, comb. et stat. nov., based on *L. hyssopifolia* A. Gray, Proc. Amer. Acad. Arts 21:404. 1886.

SPECIMENS EXAMINED: Chihuahua: Near Batopilas, Oct 1898, *Goldman 210* (NY, US); At the Frailes in the mountains above Batopilas, Aug-Sep 1885, *Palmer 260* (NY, US - the type collection). Durango: 20.6 miles west of Ojito on road to El Vergel west of Hildalgo del Parral, 14 Sep 1972, *Reveal & Hess 3086* (US, plus 29 duplicates).

The var. *hyssopifolia* may be distinguished from var. *longiflora* by its shorter revolute calyx lobes (2-5 vs. 6-13 mm long), slightly shorter and broader leaves which are often 1-4 toothed, and more northern distribution. The typical variety is known only from Jalisco and central Durango, while var. *hyssopifolia* is known from only two locations, one in southwest Chihuahua and a second in extreme northern Durango.

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LITERATURE CITED

- ERNST, W.R. 1972. Floral morphology and systematics of *Lamourouxia* (Scrophulariaceae: Rhinanthoideae). *Smithsonian Contr. Bot.* 6: 1-63.
- GRAY, A. 1886. Contributions to American Botany. XXIII. *Proc. Amer. Acad. Arts* 21: 363-413.